

30 AUG 63

CLASSIFIED MESSAGE

25X1

ORIG: [REDACTED] ad
 UNIT: MD/OSA-DD/S&T
 EXT: 5709
 DATE: 30 AUGUST 1963

S-E-C-R-E-T

25X1 TO [REDACTED]

FROM: [REDACTED]

CONF: OSA 1-15

INFO: [REDACTED]

ROUTING	
1	MD/OSA
2	D/FA/OSA
3	C/PS/OSA
4	OD/OSA
5	OD/OSA
6	OD/OSA
7	CD/OSA
8	RR/OSA
9	
10	
11	
12	
13	
14	
15	
16	

PRIORITY ROUTINE	DEFERRED	PRIORITY	INITIALS
	X	ROUTINE	OPERATIONAL IMMEDIATE

011717899X1

25X1

TO [REDACTED]

INFO

CITE [REDACTED]

IDEALIST

1. AM CONSIDERING A PROPOSAL FROM [REDACTED] GENERATED BY FOG 25X1 REQUIREMENT TO MODIFY THE R-44 SEXTANT FOR IMPROVED ACCURACY AND RELIABILITY. COST OF MOD WILL BE QUITE LARGE. WOULD APPRECIATE YOUR COMMENT ON ANY OPERATIONAL OR MAINTENANCE PROBLEMS YOU ARE HAVING WHICH WOULD JUSTIFY THE NEED FOR US TO PARTICIPATE IN PRODUCT IMPROVEMENT THIS ITEM. YOUR USAGE FACTOR WILL ALSO HAVE A BEARING ON THIS JUSTIFICATION.

2. ACCURACY IMPROVEMENTS WOULD ENCOMPASS:

A. MORE PRECISE ELEVATION GEAR TRAIN USING STAINLESS STEEL GEARS IN LIEU OF BRASS.

B. NEW BEARINGS OF CLOSER TOLERANCE.

C. SMALLER BUBBLE WITH WANDER AND SIZE CHANGE ELIMINATED.

D. IMPROVED AVERAGER WITH ELIMINATION OF CABLE BACKLASH.

3. RELIABILITY AND MAINTENANCE IMPROVEMENTS WOULD ENCOMPASS:

A. BUBBLE SHELF LEVELLING.

THE BUBBLE CAN BE LEVELLED ON THE BENCH AND LOCKED IN POSITION
COORDINATING OFFICERS

RELEASING OFFICER

S-E-C-R-E-T

GROUP 1
Excluded from automatic
downgrading and
declassification

AUTHENTICATING OFFICER

Copy No. [REDACTED]

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CLASSIFIED MESSAGE

ORIG :
UNIT :
EXT :
DATE :TO :
FROM :
CONF :
INFO :

S-E-C-R-E-T

PAGE TWO

		ROUTING	
PRIORITY ROUTINE	9	10	11
	12	13	14
	15	16	
		DEFERRED	PRIORITY
		ROUTINE	OPERATIONAL IMMEDIATE
			INITIALS

OUT 17899

TO

INFO

CITE

REQUIRING ONLY THAT IT BE CENTERED WHEN CALIBRATING.

B. NEW HOUSINGS.

THIS WILL PERMIT EASIER AND FASTER ALIGNMENT THROUGH SEPARATION OF UPPER AND LOWER HOUSINGS.

C. BUBBLE LIGHTING.

NEW MODULAR ASSEMBLY CAN BE REPLACED IN AIRCRAFT.

D. NEW BUBBLE.

READJUSTMENTS FOR SIZE AND THERMOSTAT REPLACEMENT WILL BE MINIMIZED.

4. OPERATOR PRESENTATION IMPROVEMENTS WOULD INCLUDE:

A. INSTALLATION OF A PELLICLE TO REPLACE THE BEAM SPLITTER.

THIS WILL ELIMINATE GHOST IMAGES.

B. SMALLER BUBBLE. THIS WILL MAKE IT EASIER FOR PILOT TO CENTER THE CELESTIAL BODY AND KEEP IT THERE THROUGHOUT OBSERVATION PERIOD.

C. BUBBLE LIGHTING. SHARPER ILLUMINATION WILL ENABLE MORE ACCURATE PILOT OBSERVATION.

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ROUTING

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PRIORITY ROUTINE	DEFERRED	PRIORITY	INITIALS
	ROUTINE	OPERATIONAL IMMEDIATE	INITIALS

OUT 17899

TO

INFO

CITE

D. BETTER QUALITY IMAGE. ALL OPTICAL ELEMENTS WILL HAVE NEW EFFICIENT COATINGS WHICH WILL INCREASE TRANSMISSION AND IMAGE QUALITY THROUGH THE SYSTEM.

5. IN ADDITION TO THE ABOVE, A SKY COMPASS CAN BE INCORPORATED IN THE SEXTANT TO GIVE ADDED HEADING COVERAGE DURING THOSE PERIODS WHEN CELESTIAL BODIES ARE NOT AVAILABLE FOR OBSERVATION. THIS WOULD BE OF PRINCIPAL BENEFIT DURING TWILIGHT PERIODS IN NORTHERN LATITUDES.

6. PLEASE SUBMIT YOUR COMMENTS BY 10 SEPTEMBER 1963.

END OF MESSAGE

C/ OD/OSA

25X1

25X1

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AC/AD/OSA

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